

Lead - ToxFAQs™

What is lead?

Lead is a naturally occurring metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment, including air, water and soil. Lead can exist in many different chemical forms.



Lead is used in the production of batteries, ammunition, and metal products (solder and pipes). Because of health concerns, use of lead in paints, ceramic products, caulking, and pipe solder has been dramatically reduced. The use of lead as an additive to automobile gasoline was banned in 1996 in the United States.

What happens to lead in the environment?

- Lead is an element and, therefore, it does not break down.
- When lead is released to the air, it may be transported long distances before it deposits onto the ground.
- Once deposited, lead often adheres to soil particles.
- Lead in soil can be transported into groundwater, but the amount of lead that moves into groundwater will depend on the chemical form of lead and soil type.

How can I be exposed to lead?

- Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder which can leach into the water.
- Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can form lead dust which can be ingested.
- Spending time in areas where the soil is contaminated with lead.
- Working in a job where lead is used or participating in certain hobbies in which lead is used, such as making stained glass.
- Using health-care products or folk remedies that contain lead.

Lead can affect almost every organ and system in your body

How can lead affect my health?

The effects of lead are the same whether it enters the body through inhalation or ingestion. Lead can affect almost every organ and system in your body. The nervous system is the main target for lead toxicity in adults and children. Long-term exposure can result in decreased learning, memory, and attention and weakness in fingers, wrists, or ankles. Lead exposure can cause anemia and damage to kidneys. It can also cause increases in blood pressure, particularly in middle-aged and older individuals. Exposure to high lead levels can severely damage the brain and kidneys and can cause death. In pregnant women, exposure to high levels of lead may cause a miscarriage. High-level exposure in men can damage reproductive organs.

Lead

How can lead affect children?

Children are more vulnerable to lead poisoning than adults because their nervous system is still developing. Children can be exposed to lead in their environment and prior to birth from lead in their mother's body. At lower levels of exposure, lead can decrease mental development, with effects on learning, intelligence and behavior. Physical growth may also be decreased. A child who swallows large amounts of lead may develop anemia, severe stomachache, muscle weakness, and brain damage. Exposure to lead during pregnancy can result in premature births. Some effects of lead may persist into adulthood.

Can lead cause cancer?

There have been several agencies and organizations both in the United States and internationally that have reviewed studies and made an assessment about whether lead can cause cancer.

- The Department of Health and Human Services (HHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens
- The U.S. Environmental Protection Agency (EPA) has classified lead as a probable human carcinogen.
- The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans, and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

Can I get a medical test to check for lead?

A blood test is available to measure the amount of lead in your blood. Blood tests are commonly used to screen children for lead poisoning. Your doctor can draw blood samples and send them to appropriate laboratories for analysis.

How can I protect my family from lead exposure?

- Avoid exposure to sources of lead.
- Do not allow children to chew or mouth surfaces that may have been painted with lead-based paint.
- If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

Want more information?



Go to ATSDR's [Toxicological Profile for Lead](#)

CDC Lead Poisoning Prevention Program <https://www.cdc.gov/nceh/lead/default.htm>

Environmental Protection Agency <https://www.epa.gov/lead/protect-your-family-exposures-lead>

Call **CDC-INFO** at 1-800-232-4636, or submit your question online at <https://wwwn.cdc.gov/dcs/ContactUs/Form>

Go to ATSDR's Toxic Substances Portal: <http://www.atsdr.cdc.gov/substances/index.asp>

If you have any more questions or concerns, you can also find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html